

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/23/07 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 8 and 30-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hogg et al (US 7,269,475 B1) in view of Jackson et al (US 6,039,316) in view of Modery et al (US 4,766,547).
5. Regarding Claims 8 and 35-37, Hogg discloses a computer-based control system that controls a number of track zones. For example, each zone in the form of element (630) has a controlling agent, as illustrated in figure 6 of Hogg. Each agent shares information with other agents along with global requirements as obtained from global controller (602). See Hogg at col. 7, lines 1-52. Therefore, if one element is controlled by one agent, and the agent's instructions to that element (630) are calculated by input and instructions/requirements from both a neighboring agent, i.e., track zone, and from the global controller, i.e. the control logic computer. Hogg discloses a carrier in the form of transport object (102).

Hogg does not expressly disclose, but Jackson discloses a director controller in the form of second and third level computation elements which controls "zones of control" below it for the purpose of optimally routing the carrier in the material transport system in a multi-hierarchical control scheme that "dynamically adapts to accommodate different sized objects." See figures 6-9 of Jackson and col. 8, lines 15-20.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated the director controllers in a multi-hierarchical form of control in Hogg's material transport system, as taught by Jackson, for the purpose of allowing Hogg's system to dynamically adapt to accommodate different sized objects/carriers.

Regarding Claims 8 and 35-37, Hogg does not expressly disclose, but Modery discloses a control system (62), as depicted in figure 6 of Modery, which determines an optimal routing for items transported by conveyor (12).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated a control system, as taught by Modery, in the conveyor transport system of Hogg, for the purpose of allowing Hogg's system to optimally route items along an optimal conveyor transport path.

Note also that it would have been obvious to incorporate a large number of Hogg's conveyors connecting as taught by Modery, for the purpose of moving items efficiently and quickly to various parts of a warehouse or factory floor.

Regarding Claims 30-32, note that first, second and third control threads are equivalent to Hogg's computational agents.

Regarding Claim 33, note that the at least one drive motor is construed as Hogg's air pump that pumps a jet of air from the surface of a particular track zone. Note also that such a track zone also is disclosed as having a sensor, and that by the director moves the jet such that it moves the carrier in a rotating motion.

Although Hogg does not expressly disclose a load port transfer device, note that such a device can be construed as a track zone that bridges two or more linear tracks. See, for example, figure 7 of Modery.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a load transport device to bridge multiple tracks such as Hogg's, as taught by Modery.

Regarding Claim 34, note that it would have been obvious for Hogg's carrier to move anything required of a particular manufacturing production task, as required.

Response to Arguments

6. Applicant's arguments with respect to Claims 8 and 30-37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY A. SHAPIRO whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey A. Shapiro/
Primary Examiner, Art Unit 3653

October 14, 2008